AMENDMENTS TO THE CLAIMS

Please **CANCEL** claims 2, 33-38, and 40 without prejudice or disclaimer.

Please **AMEND** claims 1, 3-4, 8-15, 39, 41, 43-45, and 47-53, as shown below.

1. (Currently Amended) A method for downloading streaming data comprising ~~the steps of~~:

establishing connections between a user client and a plurality of nodes;

dividing streaming data into a plurality of blocks for sequential download, ~~said plurality of~~ the blocks including ~~a~~ first and second blocks;

dividing the first block ~~of said streaming data~~ into a plurality of sub blocks;

sending a request to the nodes ~~for at least one of said sub blocks to the plurality of nodes where connection is established~~ to download assigned ones of the sub blocks to the user client, in parallel;

monitoring the download~~ing of the sub blocks from the nodes to the user client, through~~ ~~state of~~ the established connections~~, said user client receiving said sub blocks from said respective nodes via said established connections in parallel~~; and

~~redistributing~~ reassigning only un-downloaded ones of the ~~said~~ sub blocks, based on the monitoring, from a first one of the nodes to a second one of the nodes, if the first node is determined to have a bad connection, and if the second node finishes downloading before the first node,~~ a bad connection to other node for download if one of said established connections is determined to be the bad connection based on said monitored download state~~;

wherein the ~~step of~~ sending ~~a request~~, the ~~step of~~ monitoring,~~ download state~~ and the ~~step of redistributing said sub blocks~~ reassigning are repeated for downloading sub blocks

included in the second block, when download~~ing~~ of ~~all sub blocks included in~~ the first block is completed.~~;~~

~~monitoring state information of nodes which are not transmitting data among nodes where connection is established; and~~

~~redistributing sub blocks to be downloaded between some of the nodes which are transmitting data and some of the nodes which are not transmitting data.~~

2. (Canceled)

3. (Currently Amended) The method of claim 1, wherein the ~~step of~~ monitoring of the download~~ing~~ ~~state~~ comprises determining which of the nodes are finished downloading. ~~the step of monitoring completion of download for each of said connected nodes, the step of redistributing said sub blocks comprises the step of redistributing sub blocks from a first node to a second node when download is completed at the second node.~~

4. (Currently Amended) The method of claim 1 ~~2~~, wherein ~~said match of~~ the sub blocks ~~and~~ are assigned to the nodes ~~is determined~~ based on ~~connection state valuation index, the connection state valuation index being calculated using information selected from group consisting of~~ a round-trip time with each of the nodes, ~~and~~ an average download speed from each of the nodes, or a combination thereof.

5 - 7. (Cancelled)

8. (Currently Amended) The method of claim 1 ~~3~~, wherein if the first node has a lowest download rate among the connected nodes, the reassigning is ~~step of redistributing said sub~~

~~blocks comprises the step of: determining a redistribution of said sub blocks from the first node~~ ~~to the second node~~ based on the download rate of the first node and ~~the~~ ~~a~~ number of ~~un-~~ downloaded ~~remaining~~ sub blocks of the first node.

9. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ storing information of nodes with which the connection establishment failed in a black list queue.

10. (Currently Amended) The method of claim 1 ~~2~~, further comprising ~~the step of~~ receiving node state information, wherein the sub blocks ~~to be downloaded from each of the~~ ~~nodes are~~ is determined using the node state information.

11. (Currently Amended) The method of claim 1 ~~2~~, wherein the sub blocks to be downloaded from each of the nodes are ~~determined~~ assigned according to: ~~by~~ state information of the nodes in an initial state of download, after a determination of download speed from each of the nodes; ~~,~~ and by ~~sub blocks to be downloaded from each of the nodes are determined~~ using a connection state valuation index that ~~which~~ is calculated using ~~information selected from~~ ~~the group consisting of~~ a round-trip time with each of the nodes, ~~and~~ an average download speed from each of the nodes, or a combination thereof.

12. (Currently Amended) The method of claim 10, wherein the connection establishment with the ~~plurality of~~ nodes is ~~are~~ performed using state information of the nodes ~~in step of~~ ~~establishing connections~~.

13. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ determining a downloading error using a checksum ~~.~~ value of the downloaded sub blocks.

14. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ sending a request ~~for sub blocks to corresponding nodes by the redistribution result~~ to download the reassigned ~~redistributed~~ sub blocks ~~after redistribution of sub blocks~~.

15. (Currently Amended) The method of claim 1, further comprising ~~the step of~~ downloading streaming data by connecting to a singular server, if the sub block downloading ~~from the plurality of the nodes~~ fails.

16-38. (Cancelled)

39. (Currently Amended) A non-transitory computer-readable storage medium comprising an executable program, which when executed, downloads streaming data by performing the following steps:

establishing connections between a user client and a plurality of nodes;

dividing streaming~~,~~ data into a plurality of blocks for sequential download, the ~~said plurality of~~ blocks including~~; a~~ first and second blocks;

dividing the first block ~~of said streaming data~~ into a plurality of sub blocks;

sending a request to the nodes ~~for at least one of said sub blocks to the plurality of nodes where connection is established~~ to download assigned ones of the sub blocks to the user client, in parallel;

monitoring the downloading of the sub blocks from the nodes to the user client, through ~~state of~~ the established connections~~, said user client receiving said sub blocks from said respective nodes via said established connections in parallel~~; and

redistributing reassigning only un-downloaded ones of the said sub blocks, based on the monitoring, from a first one of the nodes to a second one of the nodes, if the first node is determined to have a bad connection, and if the second node finishes downloading before the first node, of a bad connection to other node for download if one of said established connections is determined to be the bad connection based on said monitored download state;

wherein the step of sending a request, the step of monitoring, download state and the reassigning step of redistributing said sub blocks are repeated for downloading sub blocks included in the second block, when downloading of all sub blocks included in the first block is completed. ;

monitoring state information of nodes which are not transmitting data among nodes where connection is established; and

redistributing sub blocks to be downloaded between some of the nodes which are transmitting data and some of the nodes which are not transmitting data.

40. (Canceled)

41. (Currently Amended) The one or more storage medium media of claim 39 40, wherein said match of the sub blocks are assigned and the nodes is determined based on a connection state valuation index. the connection state valuation index being that is calculated using information selected from group consisting of a roundtrip time with each of the nodes, and an average download speed from each of the nodes, or a combination thereof.

42. (Cancelled)

43. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 40, further comprising ~~the step of~~ receiving node state information, wherein the sub blocks are assigned to ~~be downloaded from~~ each of the nodes based on ~~are determined using the~~ node state information.

44. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 43, wherein the establishing of the connection ~~establishment~~ with the ~~plurality of~~ nodes is ~~are~~ performed using the node state information ~~of the nodes in step (a)~~.

45. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39 ~~40~~, wherein the sub blocks are assigned based on: ~~to be downloaded from each of the nodes are determined by~~ state information of the nodes in an initial state of download, after a determination of download speed from each of the nodes; ~~,~~ and by ~~sub blocks to be downloaded from each of the nodes are determined~~ using a connection state valuation index that ~~which~~ is calculated using ~~information selected from group consisting of~~ a round-trip time with each of the nodes, ~~and~~ an average download speed from each of the nodes, or a combination thereof.

46. (Cancelled)

47. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39, wherein the ~~step of~~ monitoring of the downloading ~~state~~ comprises ~~the step of~~ monitoring the completion of downloading for each of the ~~said connected~~ nodes ~~, the step of redistributing said sub blocks comprises the step of redistributing sub blocks from a first node to a second node when download is completed at the second node~~.

48. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 47, wherein the first node has the lowest download rate among the ~~connected~~ nodes.

49. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39 ~~48~~, wherein the reassigning of the ~~step of redistributing said~~ sub blocks ~~comprises the steps of: determining redistribution of said sub blocks from the first node to the second node~~ is based on the download rate and the ~~a~~ number of un-downloaded ~~remaining~~ sub blocks assigned to ~~of~~ the first node.

50. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39, further comprising ~~the step of~~ storing information of nodes with which the connection establishment failed, in a black list queue.

51. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39, further comprising ~~the step of~~ determining a downloading error using a checksum value of the downloaded sub blocks.

52. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39, further comprising ~~the step of~~ sending a request ~~for sub blocks to corresponding nodes by the redistribution result~~ to download the reassigned ~~redistributed~~ sub blocks ~~after redistribution of sub blocks~~.

53. (Currently Amended) The ~~one or more~~ storage medium ~~media~~ of claim 39, further comprising ~~the step of~~ downloading streaming data by connecting to a singular server, if the sub block downloading ~~from the plurality of the nodes~~ fails.

54. (Cancelled)